

IN THE CLAIMS

Claim 1. (Currently Amended) A method of implementing for enabling multiple Quality of Service (QoS) across support over Frame Relay (FR) and Ethernet networks to enable similar QoS to be provided to packets in both the Frame Relay and Ethernet networks as the packets pass from one network to the other, the method comprising the steps of:

receiving a packet from the Ethernet network;

identifying ~~a~~ the packet according to an Ethernet protocol for servicing;

determining ~~a-~~an Ethernet QoS metric for the identified packet, the QoS metric being associated with the packet on the Ethernet network; and

based upon the determined Ethernet QoS metric, determining a corresponding Frame Relay QoS metric; and

servicing the identified packet for transmission on the Frame Relay network in accordance with ~~a~~ the determined corresponding Frame Relay QoS metric protocol to thereby enable similar QoS to be provided to the packet in the Frame Relay network as was provided to the packet in the Ethernet network.

Claim 2. (Previously Presented) The method of claim 1, wherein the step of determining a QoS metric includes considering Ethernet information.

Claim 3. (Previously Presented) The method of claim 2, wherein the Ethernet information includes Ethernet port information.

Claim 4. (Previously Presented) The method of claim 2, wherein the Ethernet information includes virtual local area network identifier (VLAN ID) information.

Claim 5. (Previously Presented) The method of claim 2, wherein the Ethernet information includes p-bits information.

Claim 6. (Previously Presented) The method of claim 5, wherein the Ethernet information further includes VLAN ID information.

Claim 7. (Previously Presented) The method of claim 5, wherein the step of servicing further includes assigning a drop precedence to the packet based on the p-bits information.

Claim 8. (Previously Presented) The method of claim 1, wherein the step of determining a QoS metric includes considering Upper Layer Protocol (ULP) information.

Claim 9. (Previously Presented) The method of claim 8, wherein the ULP information includes Internet Protocol (IP) packet information

Claim 10. (Previously Presented) The method of claim 9, wherein the IP packet information includes Differentiated Services Code Point (DSCP) bit information.

Claim 11. (Previously Presented) The method of claim 10, wherein the IP packet information further includes VLAN ID information.

Claim 12. (Previously Presented) The method of claim 10, wherein the step of servicing further includes assigning a drop precedence to the packet based on the DSCP bit information.

Claim 13. (Currently Amended) A method of implementing for enabling multiple Quality of Service (QoS) across support over Frame Relay (FR) and Ethernet networks to enable similar QoS to be provided to packets in both the Frame Relay and Ethernet networks as the packets pass from one network to the other, the method comprising the steps of:

receiving a packet from the Frame Relay network;

identifying a the packet according to a Frame Relay protocol for servicing;

determining a Frame Relay QoS metric for the identified packet, the QoS metric being associated with handling of the packet on the Frame Relay network by considering FR information; and

based upon the determined Frame Relay QoS metric, determining a corresponding Ethernet QoS metric; and

servicing the identified packet for transmission in accordance with an Ethernet protocol to thereby enable similar QoS to be provided to the packet in the Ethernet network as was provided to the packet in the Frame Relay network.

Claim 14. (Currently Amended) The method of claim 13, wherein the Frame Relay FR information includes data link connection information.

Claim 15. (Previously Presented) The method of claim 13, wherein the step of servicing further includes assigning a drop precedence to the packet based on discard eligible (DE) bit information.

Claim 16. (Previously Presented) The method of claim 1, wherein the step of servicing includes mapping the packet to a Frame Relay Data Link Connections (DLC) and scheduling the packet for transmission according to a sub-connection scheduling scheme.

Claim 17. (Previously Presented) The method of claim 1, wherein the step of servicing includes mapping the packet to one of a plurality of Frame Relay Data Link Connections (DLCs) and scheduling the packet for transmission according to a connection scheduling scheme.

Claim 18. (Previously Presented) The method of claim 13, wherein the step of servicing includes mapping the packet to an Ethernet port and scheduling the packet for transmission according to a class scheduling scheme.

Claim 19. (Previously Presented) The method of claim 13, wherein the step of servicing includes mapping the packet to one of a plurality of Ethernet ports and scheduling the packet for transmission according to a basic scheduling scheme.

Claim 20. (Currently Amended) A system for implementing enabling multiple Quality of Service (QoS) across support over Frame Relay FR and Ethernet networks to enable similar QoS to be provided to packets in both the Frame Relay and Ethernet networks as the packets pass from one network to the other comprising:

an input; and
control circuitry associated with the input and adapted to:

receive a packet from the Ethernet network;
identify a the packet according to an Ethernet protocol for servicing;
determine a-an Ethernet QoS metric for the identified packet, the QoS metric being associated with the packet on the Ethernet network; and
based upon the determined Ethernet QoS metric, determining a corresponding Frame Relay QoS metric; and
service the identified packet for transmission on the Frame Relay network in accordance with a the determined corresponding Frame Relay QoS metric protocol to thereby enable similar QoS to be provided to the packet in the Frame Relay network as was provided to the packet in the Ethernet network.

Claim 21. (Previously Presented) The system of claim 21, wherein the control circuitry is further adapted to consider Ethernet information to determine a QoS metric.

Claim 22. (Previously Presented) The system of claim 22, wherein the Ethernet information further includes Ethernet port number information.

Claim 23. (Previously Presented) The system of claim 22, wherein the Ethernet information further includes VLAN ID information.

Claim 24. (Previously Presented) The system of claim 22, wherein the Ethernet information further includes p-bits information.

Claim 25. (Previously Presented) The system of claim 25, wherein the Ethernet information further includes VLAN ID information.

Claim 26. (Previously Presented) The system of claim 25, wherein the control circuitry is further adapted to assign a drop precedence to the packet based on the p-bits information.

Claim 27. (Previously Presented) The system of claim 21, wherein the control circuitry is further adapted to consider Upper Layer Protocol (ULP) information to determine a QoS metric.

Claim 28. (Previously Presented) The system of claim 28, wherein the ULP information includes Internet Protocol (IP) information.

Claim 29. (Previously Presented) The system of claim 29, wherein the IP information includes Diff-Serv Differentiated Services Code Point (DSCP) bit information.

Claim 30. (Previously Presented) The system of claim 29, wherein IP information further includes virtual local network identifier (VLAN ID) information.

Claim 31. (Previously Presented) The system of claim 30, wherein the control circuitry is further adapted to assign a drop precedence to the packet based on the DSCP bit information.

Claim 32. (Currently Amended) A system of implementing for enabling multiple Quality of Service (QoS) across support over Frame Relay (FR) and Ethernet networks to enable similar QoS to be provided to packets in both the Frame Relay and Ethernet networks as the packets pass from one network to the other comprising:

an input; and

control circuitry associated with the input and adapted to:

receiving a packet from the Frame Relay network;

identify a the packet according to a Frame Relay protocol for servicing;

consider Frame Relay FR information to determine a Frame Relay QoS metric for the identified packet, the QoS metric being associated with handling of the packet on the Frame Relay network; and

based upon the determined Frame Relay QoS metric, determining a corresponding Ethernet QoS metric; and

service the identified packet for transmission in accordance with an Ethernet protocol to thereby enable similar QoS to be provided to the packet in the Ethernet network as was provided to the packet in the Frame Relay network.

Claim 33. (Currently Amended) The system of claim 33, wherein Frame Relay FR information includes data link connection information.

Claim 34. (Previously Presented) The system of claim 33, wherein the control circuitry is further adapted to assign a drop precedence based on DE bit information.

Claim 35. (Previously Presented) The system of claim 21, wherein the control circuitry is further adapted to map the packet to a Frame Relay Data Link Connections (DLC) and schedule the packet for transmission according to a sub-connection scheduling scheme to service the packet.

Claim 36. (Previously Presented) The system of claim 21, wherein the control circuitry is further adapted to map the packet to one of a plurality of Frame Relay Data Link Connections (DLCs) and schedule the packet for transmission according to a connection scheduling scheme to service the packet.

Claim 37. (Previously Presented) The system of claim 32, wherein the control circuitry is further adapted to map the packet to an Ethernet port and schedule the packet for transmission according to a class scheduling scheme to service the packet.

Claim 38. (Previously Presented) The system of claim 32, wherein the control circuitry is further adapted to map the packet to one of a plurality of Ethernet ports and schedule the packet for transmission according to a basic scheduling scheme to service the packet.

Claim 39. (Previously Presented) The system of claim 21, wherein the system is located at an edge of a core network.

Claim 40. (Previously Presented) The system of claim 21, wherein the system is located in a user element.